

SEQUENCE LISTING

<110>	Ensoli, Caputo, Laus, Mi Tondelli Sparnacc Gaviolo,	Antonell chele , Luisa i, Katia											
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Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe 20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp

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<220>

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1 10 15

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Gln Pro Lys Th		Thr Asn	Cys Tyr 25	Cys Lys	Lys Cys	Cys	Phe
cat tgc caa gt His Cys Gln Va 35	_		_				~ <u>~</u>
agg aag aag co Arg Lys Lys Ai 50							
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Gln Pro Lys Th	-	Thr Asn	Cys Tyr 25	Cys Lys	Lys Cys	Cys	Phe
His Cys Gln Va 35	al Cys Phe	Ile Thr 40	Lys Ala	Leu Gly	Ile Ser	Tyr	Gly
Arg Lys Lys Ar 50	rg Arg Gln	Arg Arg 55	Arg Pro	Pro Gln 60	Gly Ser	Gln	Thr
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Arg Lys Lys Arg 50	Arg Gln Arg Ai 55		Gln Gly Ser Gln 60	Thr
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His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr 50 55 60 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp 65 70 75 80 Pro Thr Gly Pro Lys Glu 85 <210> 9 <211> 252 <212> DNA <213> Human immunodeficiency virus <220> <221> CDS <222> (1)..(252) <400> 9 atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser 10 15 1 cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe 30 20 25 144 cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly 40 35 agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192 Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Ser Gln Thr 50 60 cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly 65 70 75 80 252 ccg aag gaa tag Pro Lys Glu <210> 10 <211> 83 <212> PRT <213> Human immunodeficiency virus

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His	Cys	Gln 35	Val	Cys	Phe	Ile	Thr 40	Lys	Ala	Leu	Gly	Ile 45	Ser	Tyr	Gly	
Arg	Lys 50	Lys	Arg	Arg	Gln	Arg 55	Arg	Arg	Pro	Pro	Gln 60	Gly	Ser	Gln	Thr	
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Pro	Lys	Glu														
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		aaa Lys														96
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		aag Lys														192
		gtt Val				_	_						_			240
_	aag Lys	gaa Glu	tag													252

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                                25
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Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
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Pro Lys Glu
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                                                         15
1
                                    10
                5
                                                                       96
cag cct aca act gct tgt aac aag tgt tac tgt aaa aag tgt tgc tat
Gln Pro Thr Thr Ala Cys Asn Lys Cys Tyr Cys Lys Lys Cys Cys Tyr
            20
                                25
                                                     30
cat tgc caa gtt tgc ttt ctg aac aaa ggc tta ggc atc tcc tat ggc
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12

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tcg aca ggc ccg gaa gaa tcg aag aag aag gtg gag agc aag gca gag Ser Thr Gly Pro Glu Glu Ser Lys Lys Lys Val Glu Ser Lys Ala Glu 85 90 95	288
aca gat cga ttc gat tag Thr Asp Arg Phe Asp 100	306
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His Cys Gln Val Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly 35 40 45	
Arg Lys Lys Arg Arg Gln Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp 50 55 60	
His Gln Asn Pro Ile Pro Lys Gln Pro Ile Pro Gln Thr Gln Gly Val 65 70 75 80	
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	Arg Gln Arg A		eaa gac agt cag act Sln Asp Ser Gln Thr SO	192
_			eag ccc cga ggg gac Sln Pro Arg Gly Asp 80	240
Pro Thr Gly Pro			gag aga gag aca gag Slu Arg Glu Thr Glu 95	288
aca gat ccg gtc Thr Asp Pro Val 100	_			306
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His Cys Gln Val 35	_	Thr Lys Gly Leu G	Gly Ile Ser Tyr Gly 45	
Arg Lys Lys Arg 50	Arg Gln Arg A	_	Gln Asp Ser Gln Thr	

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His Cy	s Leu 35	Val	Cys	Phe	Gln	Thr 40	Lys	Gly	Leu	Gly	Ile 45	Ser	Tyr	Gly	
Arg Ly 50	_	Arg	Arg	Gln	Arg 55	Arg	Ser	Ala	Pro	Pro 60	Ser	Ser	Glu	Asp	
His Gl 65					Lys					Gln	Thr	Gln	Gly	Asp 80	
Pro Th	nr Gly	Ser	Glu 85	Glu	Ser	Lys	Lys	Lys 90	Val	Glu	Ser	Lys	Thr 95	Glu	
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cat tg	gc caa	gtt	tgc	ttc	ata	acg	aaa	ggc	tta	ggc	atc	tcc	tat	ggc	144

His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly

agg aag agg cgg aga cag cga cga aga cct cct caa ggc ggt cag gct

Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Gln Ala

cat caa gat cct ata cca aag caa ccc tcc tcc cag ccc cga ggg gac 240 His Gln Asp Pro Ile Pro Lys Gln Pro Ser Ser Gln Pro Arg Gly Asp 65 70 75 80 ccg aca ggc ccg aag gaa tag 261 Pro Thr Gly Pro Lys Glu 85 <210> 20 <211> 86 <212> PRT <213> Human immunodeficiency virus <400> 20 Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser 1 5 10 15 Gln Pro Arg Thr Pro Cys Asn Lys Cys Tyr Cys Lys Lys Cys Cys Tyr 20 25 30 His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly 35 40 45 Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Gly Gln Ala 50 55 60 His Gln Asp Pro Ile Pro Lys Gln Pro Ser Ser Gln Pro Arg Gly Asp 70 75 65 Pro Thr Gly Pro Lys Glu 85 <210> 21 <211> 306 <212> DNA <213> Human immunodeficiency virus <220> <221> CDS <222> (1)..(306) <400> 21 atg gaa cta gta gat cct aac tta gat ccc tgg aac cat cca gga agc 48 Met Glu Leu Val Asp Pro Asn Leu Asp Pro Trp Asn His Pro Gly Ser 1 10 15 cag cct aca act cct tgt acc aaa tgc tat tgt aaa agg tgt tgc ttt 96

Gln	Pro	Thr	Thr 20	Pro	Cys	Thr	Lys	Cys 25	Tyr	Cys	Lys	Arg	Cys 30	Cys	Phe	
					ttt Phe											144
-					cag Gln		<u>-</u>	_	_		_	-	_		_	192
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	_	_	tgc Cys 100	_	tag											306
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His	Cys	Gln 35	Trp	Cys	Phe	Thr	Thr 40	Lys	Gly	Leu	Gly	Ile 45	Ser	Tyr	Gly	
Arg	Lys 50	Lys	Arg	Arg	Gln	Arg 55	Arg	Arg	Thr	Pro	Gln 60	Ser	Ser	Gln	Ile	
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Thr Asp Pro Cys Asp

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Gln Pro Lys Thr Pro Cys Asn Lys Cys Tyr Cys Lys Met Cys Cys Trp
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                                  25
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cat tgt caa gtt tgc ttt ctg aac aaa ggc tta ggc atc tcc tat ggc
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Arg Lys Lys Arg Lys His Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp
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                                              60
cat caa aat cct gta cca aag caa ccc tta ccc acc acc aga ggg aac
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65
                     70
                                          75
                                                              80
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aca gat cca ttc gat tag
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Thr Asp Pro Phe Asp
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His Cys Gln Val 35	Cys Phe Leu	Asn Lys Gly 40	Leu Gly Ile Ser 45	Tyr Gly
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His Gln Asn Pro 65	Val Pro Lys 70	Gln Pro Leu	Pro Thr Thr Arg	Gly Asn 80
Pro Thr Gly Pro	Lys Glu Ser 85	Lys Lys Glu 90	Val Glu Ser Lys	Thr Glu 95
Thr Asp Pro Phe	_			
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	_		tcc cga acc cgc Ser Arg Thr Arg 75	
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                                     10
1
cag cct aca act gct tgt agc aag tgt tac tgt aaa ata tgt tgc tgg
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Gln Pro Thr Thr Ala Cys Ser Lys Cys Tyr Cys Lys Ile Cys Cys Trp
            20
                                25
                                                     30
cat tgc caa cta tgc ttt ctg aaa aaa ggc tta ggc atc tcc tat ggc
                                                                      144
His Cys Gln Leu Cys Phe Leu Lys Lys Gly Leu Gly Ile Ser Tyr Gly
        35
                            40
                                                 45
agg aag aag cgg aag cac cga cga gga act cct cag agc agt aag gat
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agg aag aag cgg aga cgc cga cga gga act cct cag agc cgt cag gat Arg Lys Lys Arg Arg Arg Arg Gly Thr Pro Gln Ser Arg Gln Asp 50 55 60	192
cat caa aat cct gta cca aag caa ccc tta ccc acc acc aga ggg aac His Gln Asn Pro Val Pro Lys Gln Pro Leu Pro Thr Thr Arg Gly Asn 65 70 75 80	240
ccg aca ggc ccg aaa gaa tcg aag aag gag gtg gcg agc aag aca gag Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Ala Ser Lys Thr Glu 85 90 95	288
aca gat ccg tgc gat tag Thr Asp Pro Cys Asp 100	306
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Arg Lys Lys Arg Arg Arg Arg Gly Thr Pro Gln Ser Arg Gln Asp 50 55 60	
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